TECHNICAL BULLETIN



INSTALLATION INSTRUCTIONS FOR INSTALLATION KIT, ELECTRONIC EQUIPMENT MK-2867/VRC (NSN 5895-01-442-4584) (EIC: N/A) TO PERMIT INSTALLATION OF MULTIPLEXER, FREQUENCY HOPPING TD-1456/VRC IN SINCGARS-EQUIPPED VEHICLE (GENERIC)

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY 1 JANUARY 2004

TB 11-5820-890-20-112

INSERT LATEST CHANGED PAGES/WORK PACKAGES. DESTROY SUPERSEDED DATA.

LIST OF EFFECTIVE PAGES/WORK PACKAGES

NOTE: The portion of text affected by the changes is indicated by a vertical line in the outer margin of the page. Changes to illustrations are indicated by a vertical line adjacent to the title.

Date of issue for the original manual and changed pages/work packages are:

Original: 01 January 04

TOTAL NUMBER OF PAGES IS 36, CONSISTING OF THE FOLLOWING:

Page/WP No.	*Change No.	Page/WP No.	*Change No.
Page/WP No. Front Cover/blank A/(B blank) i/ii 1 - 16 A-1/(A-2 blank) DA 2028 Auth/blank Blank/Rear Cover	*Change No. 0 0 0 0 0 0 0 0	Page/WP No.	*Change No.

*Zero in this column indicates an original page.

TB 11-5820-890-20-112

Technical Bulletin

No. 11-5820-890-20-112

HEADQUARTERS, DEPARTMENT OF THE ARMY Washington, D.C., 1 January 2004

INSTALLATION INSTRUCTIONS FOR INSTALLATION KIT, ELECTRONIC EQUIPMENT MK-2867/VRC (NSN 5895-01-442-4584) (EIC: N/A) TO PERMIT INSTALLATION OF MULTIPLEXER, FREQUENCY HOPPING TD-1456/VRC IN SINCGARS-EQUIPPED VEHICLES (GENERIC)

REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) direct to: Commander, US Army Communications-Electronics Command Fort Monmouth, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, NJ 07703-5006. The Fax number is 732-532-1413, DSN 992-1413. You may also e-mail your recommendation to: AMSEL-LC-LEO-PUBS-CHG@ cecom3.monmouth.army.mil

In either case, a reply will be furnished direct to you.

TABLE OF CONTENTS

Subject	Section	Page
General Information		1
Purpose of Installation	1.	3
End Item or System to be Modified		3
Application Times	3.	3
Time for Completion of Installation	3.1	3
Time for Installation of One Assembly or Component	3.2	3
Preparation for Installation	4.	3
Preparation of Work Area	4.1	3
Preparation of Vehicle	4.2	3
Preparation of Installation Kit	4.3	3
Contents of Installation Kit	4.4	4
Consumable Materials Required	4.5	6
Tools and Test, Measurement, and Diagnostic Equipment (TMDE) Required	4.6	6
Installation Procedures		7
Installation of Antenna, Vehicular, AS-3900A/VRC (antenna)	5.1	7
Installation of Antenna Mounting Base	5.1.1	7
Installation of Top Antenna Assembly	5.1.2	10
Installation of Mounting Base, Electrical Equipment MT-6845/VRC (mounting base)		11
Installation of Cables	5.3	13
Post-Installation and Checkout	5.4	14
Appendix A References		A-1

LIST OF ILLUSTRATIONS

Title

Page

5-1 (1) 5-1 (2)	MK-2867/VRC Illustrated Parts List Antenna Base Installation: Antenna Port Antenna Base Installation: Antenna Bracket Top Antenna Assembly Installation Mounting Base Installation Cable Diagram – For TD-1456/VRC	8 9 10 12
--------------------	---	--------------------

LIST OF TABLES

Table

Figure

Title

Page

3-1	Installation Times	.3
4-1	Parts List for Installation Kit, Electronic Equipment MK-2867/VRC	
4.2	Consumable Materials Required	
4.3	Tools and Test, Measurement, and Diagnostic Equipment (TMDE) Required	.6

0. GENERAL INFORMATION.

0.1 SCOPE.

This technical bulletin (TB) provides installation instructions for Installation Kit, Electronic Equipment MK-2867/VRC, commonly referred to as the Mounting Kit (MK).

The MK is used for installation of Frequency Hopping Multiplexer TD-1456/VRC at field locations. The information contained in this technical bulletin is the official authorization to perform the installation at the unit maintenance level.

NOTE

This TB is not an authorization for requisition or turn-in of vehicles or SINCGARS radio sets. This TB does not establish quantity or types of vehicles or radios assigned to units.

0.2 CONSOLIDATED INDEX OF ARMY PUBLICATIONS AND BLANK FORMS.

Refer to the latest issue of DA Pam 25-30 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

0.3 MAINTENANCE FORMS, RECORDS, AND REPORTS.

0.3.1 Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, as contained in Maintenance Management Update. Air Force personnel will use AFR 66-1 for maintenance reporting and TO-00-35D54 for unsatisfactory equipment reporting. Navy personnel will report maintenance performed utilizing the Maintenance Data Collection Subsystem (MDCS) IAW OPNAVINST 4790.2, Vol 3 and unsatisfactory material/conditions (UR) IAW OPNAVINST 4790..2, Vol 2, chapter 17. Marine Corps maintains forms and procedures as prescribed by TM 4700-15/1.

0.3.2 Reporting of Item and Packaging Discrepancies. Fill out and forward SF 364 (Supply Discrepancy Report (SDR)) as prescribed in AR 735-11-2/DLAR 4140.55/SECNAVINST 4355.18/AFR 400-54/MCO 4430.3J.

0.3.3 Transportation Discrepancy Report (TDR) (SF 361). Fill out and forward Transportation Discrepancy Report (TDR) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

0.4 DESTRUCTION OF ARMY ELECTRONICS MATERIEL.

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

0.5 REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR).

0.5.1 Army. If your equipment needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design or performance. Put it on an SF 368 (Product Quality Deficiency Report). Mail it to: Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-LC-LEO-D-CS-CFO, Fort Monmouth, New Jersey 07703-5006. We'll send you a reply.

0.5.2 Air Force. Air Force personnel are encouraged to submit EIR's in accordance with AFR 900-4.

0.5.3 Navy. Navy personnel are encouraged to submit EIR's through their local Beneficial Suggestion Program.

0.5.4 Marine Corps. QDR shall be reported on SF 368 in accordance with MCO P4855.10, Product Quality Deficiency Report Manual. Submit to Commanding General, Marine Corps Logistics Base (Code 850), Albany, Georgia 31704-5000.

THIS PAGE INTENTIONALLY BLANK

1. PURPOSE OF INSTALLATION.

Installation Kit, Electronic Equipment MK-2867/VRC, herein referred to as the Mounting Kit (MK), prepares SINCGARS-equipped vehicles for the installation of Frequency Hopping Multiplexer TD-1456/VRC.

2. END ITEM OR SYSTEM TO BE MODIFIED.

Not applicable.

3. APPLICATION TIMES.

3.1 Time for Completion of Installation. Using two people, a total of 2.5 work-hours is required. Typical vehicle downtime is 3.0 hours.

3.2 Time for Installation of One Assembly or Component. Table 3-1 lists the time required to install one component. All times have been rounded off to the nearest half hour. The sum of these items will not reflect the typical vehicle downtime.

Table 3-1. Installation Times			
ITEM	SECTION	TIME	
Antenna AS-3900A/VRC	5.1	0.5	
Mounting Base, Electrical Equipment MT-6845/VRC	5.2	1.5	
Cables	5.3	1.0	

4. PREPARATION FOR INSTALLATION.

4.1 Preparation of Work Area. Ensure that the site has adequate lighting and a power source.

4.2 Preparation of Vehicle. Inspect the vehicle for damage that could affect installation. Have any such damage repaired before installing MK.

4.2.1 Items to be Removed. Not applicable.

- 4.2.2 Items to be Retained for Reuse. Not applicable.
- 4.3 Preparation of Installation Kit. To prepare MK, unpack, inspect and check inventory.

4.3.1 Precautions During Handling. Observe these steps to prevent equipment damage.

- Keep dust cover in place on connectors.
- Do not disassemble or modify parts in MK unless authorized to do so.
- Keep mounting hardware covered and protected until needed.
- When exposed to moisture, rain or salt water, keep all parts dry to prevent corrosion.

4.3.2 Unpack and Inspect Equipment.

- **4.3.2.1** Inspect Packaging for Evidence of Damage. Report discrepancies as stated in para 0.3.3.
- **4.3.2.2 Unpack and Inventory MK.** Refer to section 4.4. Report discrepancies as stated in para 0.3.2.
- 4.3.2.3 Examine Each Item for Damage. Report discrepancies as stated in para 0.3.2.

4.4 Contents of Installation Kit

Table 4-1. Parts List for Installation Kit, Electronic Equipment MK-2867/VRC					
ITEM DESCRIPTION QUANTITY SMR			SMR	FIGURE,	
NSN	AND PART NUMBER	IN MK	CODE	ITEM NO.	
5985-01-308-8988	Antenna, Vehicular AS-3900A/VRC (A3017899-2)	1	PAOOFA	4-1, 2	
5305-00-847-1159	Screw, Cap, Hexagon (3/8-16 x 1-3/4 in) MS35307-365	4	PAOZZA		
5310-00-913-8881	Nut, Hexagon (3/8-16 in) MS51971-3	4	PAOZZA		
5310-00-061-1258	Washer, Lock, Internal/External-Toothed (3/8 in) MS45904-76	8	PAOZZA		
5310-00-889-2527	Washer, Lock, Internal/External-Toothed (5/16 in) MS45904-72	2	PAOZZA		
5306-00-225-9086	Bolt, Machine (5/16-24 x 5/8 in) MS90726-31 (Not Used)	1	PAOZZA		
5330-01-205-2864	Gasket (A3013655-1)	1	PAOZZA		
5975-01-430-3109	Mounting Base, Electrical Equipment MT-6845/VRC (A3214893-1)	1	PAOOFA	4-1, 1	
5306-00-225-9089	Bolt, Machine (5/16-24 x 1 in) MS90726-34	4	PAOZZA		
5310-00-889-2527	Washer Lock, Internal/External-Toothed (5/16 in) MS45904-72	8	PAOZZA		
5310-00-880-7746	Nut, Hexagon (5/16-24 in) MS51968-5	4	PAOZZA		
5995-01-438-7824	Cable Assembly, Power Electrical, CX-13509/VRC (30 FT, 0 IN) (A3154857-5)	1	PAOZZA	4-1, 5	
5995-01-226-2441	Cable Assembly, Radio Frequency, CG-3856/VRC (12 FT, 0 IN) (A3014032-14)	1	PAOZZA	4-1, 3	
5995-01-437-8857	Cable Assembly, Radio Frequency, CG-3856/VRC (30 FT, 0 IN) (A3014032-16)	4	PAOZZA	4-1, 3	
5995-01-439-1746	Cable Assembly, Special Purpose, Electrical CX-13528/VRC (30 FT, 0 IN) (A3210672-5)	2	PAOZZA	4-1, 4	

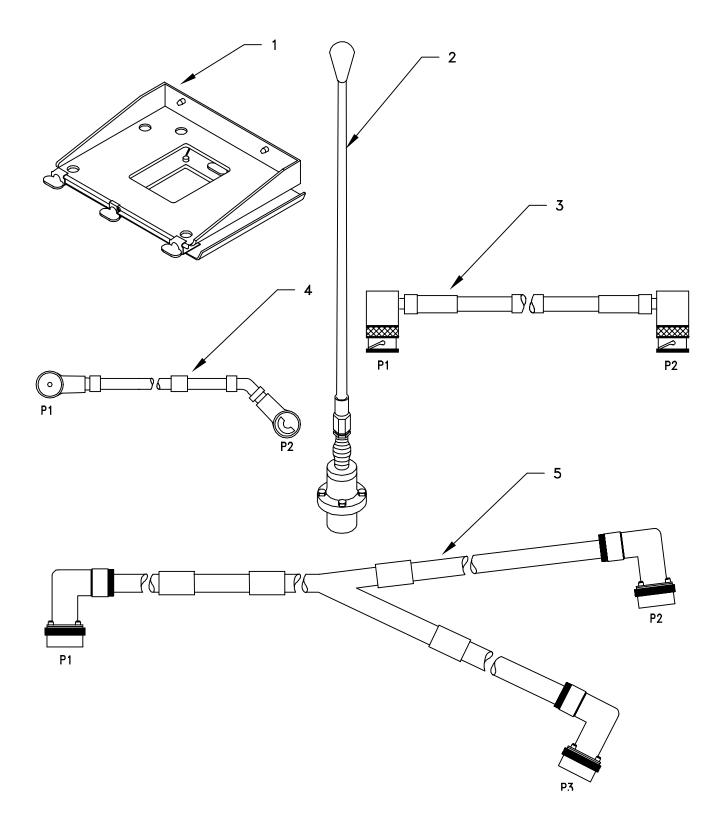


Figure 4-1. MK-2867/VRC Illustrated Parts List

4.5 Consumable Materials Required.

Table 4-3 lists materials required for installation but not supplied with the MK.

Table 4.3. Consumable Materials Required			
NSN NOMENCLATURE			
8040-01-331-7133 Adhesive-Sealant, Clear, RTV			
6850-00-880-7616 Silicone Compound, MIL-S-8660			
8030-00-292-1102 Conductive Anti-Seize Compound			

4.6 Tools and Test, Measurement, and Diagnostic Equipment (TMDE) Required.

The following tools are needed for installation.

Table 4.4. Tools and Test, Measurement, and Diagnostic Equipment (TMDE) Required				
NOMENCLATURE		NSN	QUANTITY	
Radio Sets*			2	
Frequency Hopping Multiplexer*			1	
Electric Grinder (or equivalent)			1	
Pocket Knife, Electrician's		5110-00-240-5943	1	
Screwdriver, No. 2 Point Phillips, 4 in		5120-00-234-8913	1	
Screwdriver, 1/4 in Flat blade, 4 in		5120-00-222-8852	1	
Pliers, Round Nose		5120-00-240-6172	1	
Pliers, Diagonal Cutting		5110-00-965-0974	1	
Wrench, Open/Box:	3/8 in 1/2 in 9/16 in	5120-00-228-9504 5120-00-228-9506 5120-00-228-9507	1 1 1	
Handle, Socket Wrench: Socket	3/8 in 1/2 in 9/16 in	5120-00-240-5364 5120-00-227-6702 5120-00-237-0977 5120-00-227-6704	1 1 1 1	

* Use radio sets and frequency hopping multiplexer issued with your vehicle if available.

5. INSTALLATION PROCEDURES.

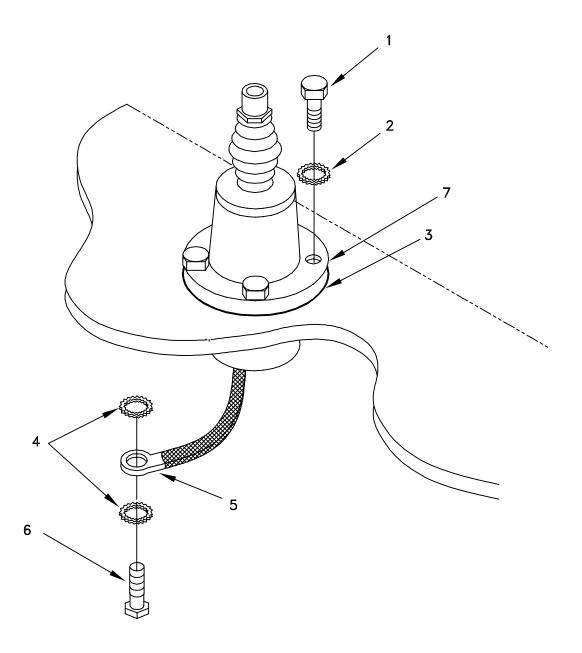
This section describes where and how to install MK items in the vehicle. When installing MK equipment, be sure to read and follow instructions and illustrations carefully.

5.1 Installation of Antenna, Vehicular, AS-3900A/VRC (antenna).

5.1.1 Installation of Antenna Base. The antenna base can be installed on either an antenna bracket or antenna port. Use steps a through d to install antenna base on antenna port and steps e through h to install antenna base on antenna bracket.

	ITEM	ACTION	REMARKS
		NOTE	
		dhesive-sealant to both sides of each internal/extern d to the area of contact where IET washer is to be pl	
a.	Gasket (3).	Apply thin coat of silicone compound to both sides. Place on antenna port and align with mounting holes. See Figure 5-1 (1).	
b.	Antenna base (7).	Place on top of gasket (3) and antenna port; then align mounting holes.	
C.	Four cap screws (1) and four internal/external- toothed (IET) washers (2).	Install and secure to antenna base (7) and antenna port.	Tools: 9/16 in socket.
d.	Ground strap (5), hex- head tapping screw (6) and two IET washers (4).	Install and secure to an existing grounding point.	Tools: 1/2 in socket.
e.	Gasket (4)	Apply thin coat of silicone compound to both sides. Place on antenna bracket and align with mounting holes. See Figure 5-1 (2).	
f.	Antenna base (1).	Place on top of gasket (4) and antenna bracket; then align mounting holes.	
g.	Four cap screws (2), eight internal/external toothed (IET) washers (3) and four nuts (5).	Install and secure to antenna base (1) and antenna bracket.	Tools: 9/16 in socket and 9/16 in open/box wrench.
h.	Ground strap (6), two internal/external toothed (IET) washers (6) and existing bolt	Install and secure to mounting hole in existing antenna bracket and mounting surface.	Tools: 1/2 in socket.

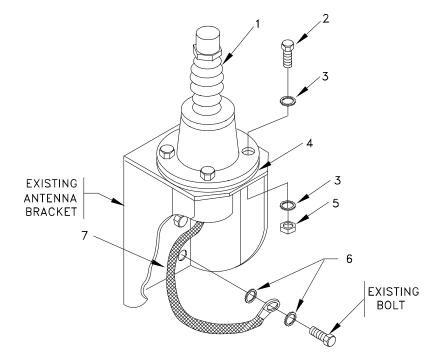
5.1.1 Installation of Antenna Base. Continued.



- 1. CAP SCREW (3/8-16 x 1 3/4 IN)
- 2. IET WASHER (3/8 IN)
- 3. GASKET
- 4. IET WASHER (5/16-IN)
- 5. GROUND STRAP

- 6. TAPPING SCREW (5/16-18 x 3/4 IN)
- 7. ANTENNA BASE
- Figure 5-1 (1). Antenna Base Installation: Antenna Port

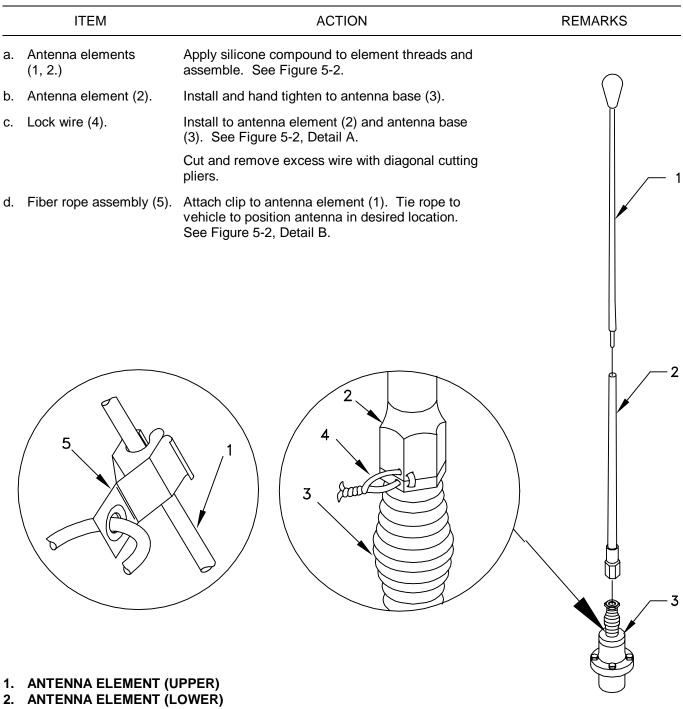
5.1.1 Installation of Antenna Base. Continued.



- 1. ANTENNA BASE
- 2. CAP SCREW (3/8-16 X 1 3/4 IN)
- 3. IET WASHER (3/8 IN)
- 4. GASKET
- 5. NUT (3/8-16 IN)
- 6. IET WASHER (5/16 IN)
- 7. GROUND STRAP

Figure 5-1 (2). Antenna Base Installation: Antenna Bracket

5.1.2 Installation of Top Antenna Assembly. The top portion of the antenna includes a lower element and an upper element (with installed cap). Use the following procedure to assemble, install and tie down all antennas.



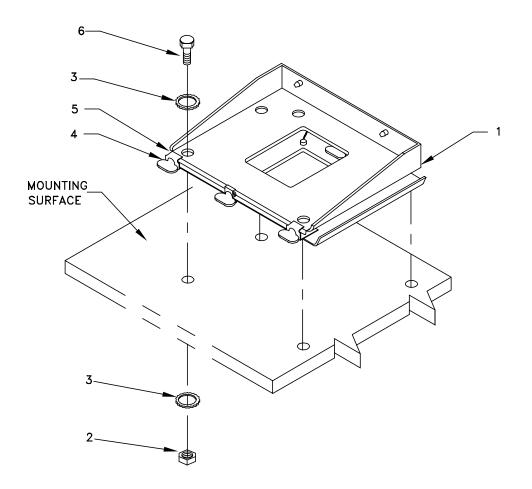
- 3. ANTENNA BASE
- 4. LOCK WIRE
- 5. FIBER ROPE ASSEMBLY

Figure 5-2. Top Antenna Assembly Installation

5.2 Installation of Mounting Base, Electrical Equipment MT-6845/VRC (mounting base). Remove and retain attaching bag of 5/16 mounting hardware. To insure good electrical grounding, any rust, corrosion or paint around mounting holes in mounting plate should be removed before installing the mounting base. See Figure 5-3 and perform the following steps.

	ITEM	ACTION	REMARKS
		NOTE	
		idhesive-sealant to both sides of each internal/extern ad to the area of contact where IET washer is to be p	
a.	Mounting base (1).	Place on equipment shelf and use as template to mark four (4) each mounting holes.	
b.	Mounting holes.	Drill four (4) each 11/32 diameter holes marked in step a.	Tools: Electric drill and 11/32 in drill bit.
C.	Mounting base (1) and existing mounting shelf.	Remove a 2" square area of paint on the underside of the mounting base (1) around left front and rear mounting holes. Remove a 2" square area of paint on the existing mounting shelf around the mounting holes drilled in step b. that mate with left front and rear mounting holes of mounting base (1). Clean the paint removed areas and apply a thin coat of conductive anti- seize compound.	Tools: Electric grinder or equivalent.
d.	Two outer thumbscrews (4).	Turn ccw until both sets of threads have cleared center of holes.	
e.	Mounting base (1).	Align four holes with hole pattern drilled in step b.	
f.	Four machine bolts (6), eight internal/external- toothed (IET) washers (3) and four nuts (2).	Install and secure to mounting base (1) and mounting shelf. See Figure 5-3.	Tools: 1/2 in socket and 1/2 in open/box wrench.
g.	Two outer thumbscrews (4).	Tighten and secure to rim clenching clamps (5) and mounting base (1).	

5.2 Installation of Mounting Base, Electrical Equipment MT-6845/VRC (mounting base). Continued.



- 1. MOUNTING BASE
- 2. NUT (5/16-24 IN)
- 3. IET WASHER (5/16 IN)
- 4. THUMBSCREW
- 5. RIM CLENCHING CLAMP
- 6. MACHINE BOLT (5/16-24 x 1 IN)

5.3 Installation of Cables. To accomplish the installation, leave loop clamps and tiedown straps loose enough to adjust cable slack and allow easy adjustment of equipment. When installation is complete, tighten and secure all clamps, clips and tiedown straps.

WARNING

Make sure vehicle power source is positioned OFF or disconnected before installing cables.

	ITEM	ACTION	REMARKS
a.	RF cable (1) connector P1.	Connect and secure to antenna base (2) connector J1.	
b.	RF cable (1).	Route along wall to left rear of mounting base (3) then forward and place connector P2 on top of mounting base (3).	
C.	RF cables (4) connector P2.	Place connector P2 for each RF cable on top of mounting base (3) then route the cables behind existing installed communications equipment (as applicable) to the SINCGARS radio sets.	
d.	SP cables (5) connector P2 and connector P3.	Place connector P2 and connector P3 for each SP cable on top of mounting base (3) then route the cables behind existing installed communications equipment (as applicable) to the SINCGARS radio sets.	
e.	Power cable (6) connector P1.	Connect and secure to connector J3 of either SINCGARS MT-6353.	
f.	Power cable (6).	Route behind existing installed communications equipment (as applicable) to mounting base (3).	
g.	Power cable (6) connector P2.	Position on top of mounting base (3)	

5.4 Post-Installation and Checkout. After equipment is installed and cables are connected, perform the following steps.

	ITEM	ACTION	REMARKS
a.	Equipment.	Check for secure mounting. Check for loose parts, connectors, and mounting hardware.	
b.	Cables.	Check for proper installation and connection of cables. See figure 5-4 for cable connections. Unused cables should be stowed in appropriate place inside the vehicle.	
C.	Loop clamps.	Check that all have been properly installed and tightened.	
d.	Protective covers.	Insure that all installed cables are covered when not in use or connected.	
e.	Radio issued with vehicle.	Install and connect cables. See TM 11-5820-890-20-2 for installation and operational (OP) checks and instructions.	

5.4 Post-Installation and Checkout. Continued.

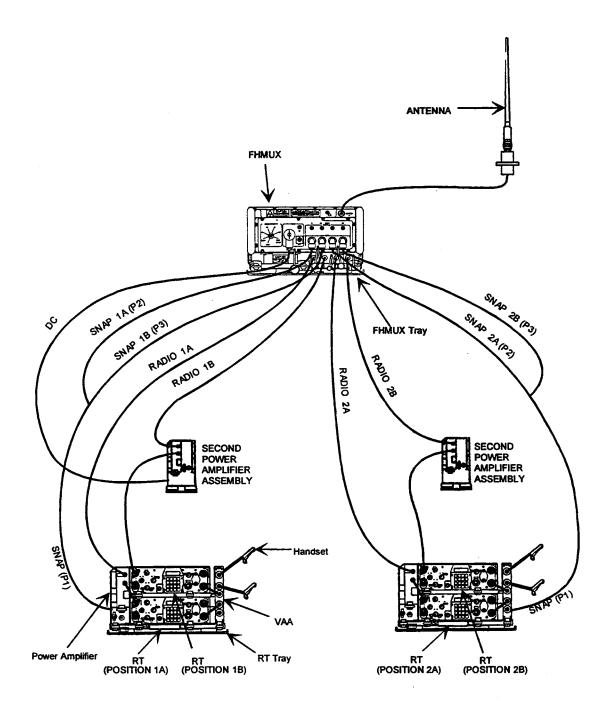


Figure 5-4. Cable Diagram: For TD-1456/VRC

5.4 Post-Installation and Checkout. Continued.

		FROM			TO	
CABLE	CABLE	UNIT	UNIT	CABLE	UNIT	UNIT
ASSEMBLY	CONN.		CONN.	CONN.		CONN.
CX-13509/VRC (30 FT, 0 IN)	P2	TD-1456/VRC	Power	P1	MT-6353/VRC mounting base	J3
CX-13528/VRC (30 FT, 0 IN)	P2 (red)	TD-1456/VRC snap connector	1A	P1	AM-7239(C/D)/VRC radio set #1	J10
CX-13528/VRC (30 FT, 0 IN)	P3 (white)	TD-1456/VRC snap connector	1B			
CX-13528/VRC (30 FT, 0 IN)	P2 (orange)	TD-1456/VRC snap connector	2A	P1	AM-7239(C/D)/VRC radio set #2	J10
CX-13528/VRC (30 FT, 0 IN)	P3 (green)	TD-1456/VRC snap connector	2B			
CG-3856/VRC (12 FT, 0 IN)	P1	Antenna base	J1	P2	TD-1456/VRC	J1
CG-3856/VRC (30 FT, 0 IN)	P2 (red)	TD-1456/VRC RF connector	1A	P1	RF amplifier radio set #1	J1
CG-3856/VRC (30 FT, 0 IN)	P2 (white)	TD-1456/VRC RF connector	1B	P1	RF amplifier (MT-6353/VRC) radio set #1	J1
CG-3856/VRC (30 FT, 0 IN)	P2 (orange)	TD-1456/VRC RF connector	2A	P1	RF amplifier radio set #2	J1
CG-3856/VRC (30 FT, 0 IN)	P2 (green)	TD-1456/VRC RF connector	2B	P1	RF amplifier (MT-6353/VRC) radio set #2	J1

Figure 5-4. Cable Diagram: TD-1456/VRC. Continued.

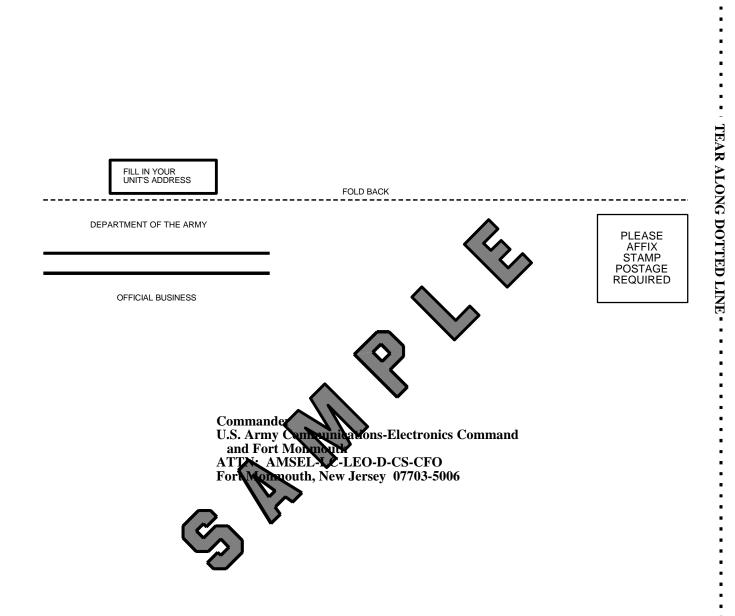
APPENDIX A

REFERENCES

DA PAM 25-30	Consolidated Index of Army Publications and Blank Forms (Contained on EM 0001)
DA PAM 710-2-1	Using Unit Supply System Manual Procedures as Contained in Unit Supply UPDATE
EM 0071	Radio, SINCGARS, Ground/Airborne
SB 11-131-2	Vehicular Radio Sets and Authorized Installations (SINCGARS)
TM 11-5820-890-10-1	Operator's Manual (ICOM Radio Sets) (Included in EM 0071)
TM 11-5820-890-10-3	Operator's Manual (Non-ICOM Radio Sets) (Included in EM 0071)
TM 11-5820-890-10-8	Operator's Manual (ASIP Radio Sets) (Included in EM 0071)
TM 11-5820-890-20-1	Unit Maintenance Manual (ICOM Radio Sets, Vol. 1) (Included in EM 0071)
TM 11-5820-890-20-2	Unit Maintenance Manual (ICOM Radio Sets, Vol. 2) (Included in EM 0071)
TM 11-5820-890-20-3	Unit Maintenance Manual Handbook (ICOM Radio Sets) (Included in EM 0071)
TM 11-5820-890-20P	Repair Parts and Special Tools List (Included in EM 0071)

	ë, En		ABOUT IT CAREFUL	OT DOWN THE INFO ON THIS FORM. LY TEAR IT OUT. ND DROP IT IN THE	FROM:	(PRINT YOUR UNIT'S C Commander Stateside Army De ATTN: AMSTA-U Stateside, N.J. 077	pot IS	
Ň	Y		MAIL.		DATE SI	ent 10 July 1	975	
	DN NUMBER	40-20		PUBLICATION DAT 23 Jan 74	Έ	PUBLICATION TITLE Radar Set AN/PRC-76		
BE EXAC	T PIN-POINT	WHERE IT IS		IN THIS SPACE TELL WHAT I		т.		
PAGE NO	PARA GRAPH	FIGURE NO	TABLE NO	AND WHAT SHOULD BE DON	IL ADUUT I	1.		
2-25	2-28			Recommend that the in procedure be changed antenna lag rather than REASON: Experience	througho 1 10. e has sho	ut to specify a 20 wn that with only) IFF 7 a 10 lag,	
				the antenna servo syste excess of 25 knots, and and decelerate as it hu Hunting is minimized degradation of operatio	d has a ten nts, causi by adjust on.	ndency to rapidly ng strain to the d ing the lag to 20	accelerate rive train. without	
3-10	3-3		3-1	Item 5, Functional concerning the REASON: The adjust FAULT indicator calls the TRAMS ROWER	ment pro	cedure for the TF	RANS POWER	
5-6	5-8	FO-3	Ø	REASON: To replace Zone C 3. On J1-2, ch	the cove	er plate.		
bBiviten	NAME CDAT	FO-3 DE OR TITLE A		REASON: This is the +24 VDC is the input	output li			

REVERSE OF DA FORM 2028-2



•

		RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIO							
7.				SC	SOMETHING WRONG WITH THIS PUBLICATIO				
			ABOUT I CAREFUI	JOT DOWN T ON THIS I LLY TEAR I AND DROF	T OUT.	FROM DATE	: (PRINT YOUR UNIT'S COMPLETE ADDRESS) SENT		
PUBLICATI	ON NUMBI	ER			PUBLICATION D	ATE	PUBLICATION TITLE		
BE EXAC	T PIN-POI	NT WHERE	IT IS	IN THIS SE	PACE TELL WHA T SHOULD BE D	AT IS WR	ONG		
ΝΟ	GRAPH	NO	NO						
PRINTED	NAME, GI	RADE OR TI	TLE AND TE	ELEPHONE N	UMBER	SIGN HI	ERE		
DA 1 JU	RM 202	28-2	PI A	REVIOUS EDI RE OBSOLET	TIONS E	RI	S IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR ECOMMENDATION MAKE A CARBON COPY OF THIS ND GIVE IT TO YOUR HEADQUARTERS.		

:

REVERSE OF DA FORM 2028-2

FILL IN YOUR UNIT'S ADDRESS

-

FOLD BACK

DEPARTMENT OF THE ARMY

_ _

OFFICIAL BUSINESS

PLEASE AFFIX STAMP POSTAGE REQUIRED

.

TEAR ALONG DOTTED LINE

•

Commander U.S. Army Communications-Electronics Command and Fort Monmouth ATTN: AMSEL-LC-LEO-D-CS-CFO Fort Monmouth, New Jersey 07703-5006

		RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIO							
7.				SC	SOMETHING WRONG WITH THIS PUBLICATIO				
			ABOUT I CAREFUI	JOT DOWN T ON THIS I LLY TEAR I AND DROF	T OUT.	FROM DATE	: (PRINT YOUR UNIT'S COMPLETE ADDRESS) SENT		
PUBLICATI	ON NUMBI	ER			PUBLICATION D	ATE	PUBLICATION TITLE		
BE EXAC	T PIN-POI	NT WHERE	IT IS	IN THIS SE	PACE TELL WHA T SHOULD BE D	AT IS WR	ONG		
ΝΟ	GRAPH	NO	NO						
PRINTED	NAME, GI	RADE OR TI	TLE AND TE	ELEPHONE N	UMBER	SIGN HI	ERE		
DA 1 JU	RM 202	28-2	PI A	REVIOUS EDI RE OBSOLET	TIONS E	RI	S IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR ECOMMENDATION MAKE A CARBON COPY OF THIS ND GIVE IT TO YOUR HEADQUARTERS.		

:

REVERSE OF DA FORM 2028-2

FILL IN YOUR UNIT'S ADDRESS

-

FOLD BACK

DEPARTMENT OF THE ARMY

_ _

OFFICIAL BUSINESS

PLEASE AFFIX STAMP POSTAGE REQUIRED

.

TEAR ALONG DOTTED LINE

•

Commander U.S. Army Communications-Electronics Command and Fort Monmouth ATTN: AMSEL-LC-LEO-D-CS-CFO Fort Monmouth, New Jersey 07703-5006

		RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIO							
7.				SC	SOMETHING WRONG WITH THIS PUBLICATIO				
			ABOUT I CAREFUI	JOT DOWN T ON THIS I LLY TEAR I AND DROF	T OUT.	FROM DATE	: (PRINT YOUR UNIT'S COMPLETE ADDRESS) SENT		
PUBLICATI	ON NUMBI	ER			PUBLICATION D	ATE	PUBLICATION TITLE		
BE EXAC	T PIN-POI	NT WHERE	IT IS	IN THIS SE	PACE TELL WHA T SHOULD BE D	AT IS WR	ONG		
ΝΟ	GRAPH	NO	NO						
PRINTED	NAME, GI	RADE OR TI	TLE AND TE	ELEPHONE N	UMBER	SIGN HI	ERE		
DA 1 JU	RM 202	28-2	PI A	REVIOUS EDI RE OBSOLET	TIONS E	RI	S IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR ECOMMENDATION MAKE A CARBON COPY OF THIS ND GIVE IT TO YOUR HEADQUARTERS.		

:

REVERSE OF DA FORM 2028-2

FILL IN YOUR UNIT'S ADDRESS

-

FOLD BACK

DEPARTMENT OF THE ARMY

_ _

OFFICIAL BUSINESS

PLEASE AFFIX STAMP POSTAGE REQUIRED

.

TEAR ALONG DOTTED LINE

•

Commander U.S. Army Communications-Electronics Command and Fort Monmouth ATTN: AMSEL-LC-LEO-D-CS-CFO Fort Monmouth, New Jersey 07703-5006

TB 11-5820-890-20-112

PETER J. SCHOOMAKER General, United States Army

Chief of Staff

By Order of the Secretary of the Army:

Official:

Joel B Hul I

Administrative Assistant to the Secretary of the Army 0400808

DISTRIBUTION:

To be distributed in accordance with the initial distribution number (IDN) 362143 requirements for TB 11-5820-890-20-112.

PIN: 080083-000

This fine document...

Was brought to you by me:



Liberated Manuals -- free army and government manuals

Why do I do it? I am tired of sleazy CD-ROM sellers, who take publicly available information, slap "watermarks" and other junk on it, and sell it. Those masters of search engine manipulation make sure that their sites that sell free information, come up first in search engines. They did not create it... They did not even scan it... Why should they get your money? Why are not letting you give those free manuals to your friends?

I am setting this document FREE. This document was made by the US Government and is NOT protected by Copyright. Feel free to share, republish, sell and so on.

I am not asking you for donations, fees or handouts. If you can, please provide a link to liberatedmanuals.com, so that free manuals come up first in search engines:

<A HREF=<u>http://www.liberatedmanuals.com/</u>>Free Military and Government Manuals

Sincerely
Igor Chudov
<u>http://igor.chudov.com/</u>
Chicago Machinery Movers